

Class IX

2023-24

Mathematics

Task 1 - Holiday's Homework assignment

1. Find 2 irrational numbers between $\frac{1}{4}$ and $\frac{3}{4}$
2. Simplify $\sqrt{72} + \sqrt{800} - \sqrt{18}$
3. Write $0.\overline{247}$ in the form of $\frac{p}{q}$, where $q \neq 0$.
4. Find the value of a and b if $\frac{\sqrt{3}-1}{\sqrt{3}+1} = a + b\sqrt{3}$
5. Simplify: $64^{\frac{-1}{3}} [64^{\frac{1}{3}} - 64^{\frac{2}{3}}]$
6. What is the value of k in polynomial $x^2 + 8x + k$, if -1 is a zero of the polynomial?
7. If $p(x) = 5x^2 - 4x + 5$, find $p(1) + p(-1) + p(0)$.
8. Show that $x + 1$ and $2x - 3$ are factors of $2x^3 - 9x^2 + x + 12$.
9. Factorise: $x^2 - 5x - 24$
10. Verify whether -2 and 3 are zeroes of the polynomial $x^2 - x - 6$

Task 2 – Art Integration

1. Write a short note on **fractals in Nature**.

For Roll No. 1 to 15 - Prepare a fractal card using A4 size Sheet

Roll No. 16 onwards - Collect the Pictures of fractals in Nature and Prepare a collage on A3 size sheet

2. **For Roll No. 1 to 15**: Prepare a **traditional/tribal toy of Andaman and Nicobar Islands** using 3D objects and find its surface area.

For Roll No. 16 onwards: Prepare a **traditional/tribal toy of Lakshdweep Islands** using 3D objects and find its surface area.

Task 3 – G20 Awareness



Disaster Risk Reduction Working Group

G20 | Presidency of India | NDMA

(This website is towards outreach support to NDMA by UNDRR)

India on assuming the Presidency of the G20 from Indonesia established the first G20 working group on Disaster Risk Reduction, to encourage collective work by the G20, undertake multi-disciplinary research and exchange best practices on disaster risk reduction.

Growing disasters around the world, the majority of which are currently driven by climate change, but also bearing in mind the destructive power of deadly geophysical hazards, threaten the lives of millions and are taking an increasing toll on economic development.

Disasters impact all countries and threaten our collective future, the establishment of this working group is a clear demonstration of the Presidency's commitment to the theme of 'Vasudhaiva Kutumbakam' – 'One Earth, One Family, One Future.'

Write a short note on disaster risk index of a country and prepare an infographics on disaster risk index worldwide.